

APPENDIX

Please replace the paragraph at page 2, line 5 with the following paragraph:

This application is a continuation [application] under 37 C.F.R. §1.53(b) of [copending] United States Application [Serial] No. 09/418,448, filed on October 15, 1999, [and copending United States Patent Application Serial No. 09/250, 741 filed February 16, 1999, currently pending] now Patent No. 6,129,999, which is a continuation-in-part of United States Application No. 09/250,741, filed on February 16, 1999, now Patent No. 6,007,701.

Please replace the paragraph at page 6, line 5 with the following paragraph:

Ethylene glycol from a source 32 is passed through a catalyst feed pump 34 and into the dehydrated used oil mixture. The amount of ethylene glycol that is added to the used oil is such that the concentration of glycol in the resulting mixture may range from 1 to 10 weight percent of the used oil. The used oil feed pump 14, the caustic feed pump 20, and the catalyst feed pump 34 are each engaged at flow rates that provide the desired amounts of each material. The used oil mixture is passed through a catalyst mixer 36 and a heater 38, where it is heated to between about 275 and 350°C, and proceeds into a stage I evaporator 40. Heating the mixture beyond 350°C is not recommended as temperature above 350°C result in excessive cracking of the used oil molecules. The stage I evaporator is typically operated under vacuum, with pressures ranging from about 150 to 300 millimeters of mercury. The catalyst and light hydrocarbons are removed through flash catalyst outlet 42 and the oil is removed through oil outlet 44. Part of the oil passes through a recycle pump 46 and back into the dehydrated used oil mixture after the catalyst mixer 36, but before the heater 38.

Please replace the paragraph at page 6, line 18 with the following paragraph:

The remainder of the oil passes through a finishing pump 48 and a heater 50, where it is heated to from about 300 to 350°C, and into a stage II evaporator 52. The stage II evaporator operates under vacuum with pressures ranging from 5 to 0.05 millimeters of mercury. The stage II evaporator may be operated at lower temperatures and pressures, but this will result in a lower yield of the heavier base oil product. The stage II evaporator separates the oil into three fractions, the viscosities of which depend upon the used oil feed. The table below lists products from a typical used oil feed:

Fraction	Color	Chlorine	Viscosity
light base oil	< 0.5	< 5 ppm	100 SUS
Medium base oil	< 1.0	< 5 ppm	150 SUS
heavy base oil	< 1.5	< 5 ppm	300 SUS
still bottoms	n/a	n/a	n/a